

ABENTEUER MIT WERNER UND ROSWITHA

**A multimedia program based on
suggestopedic principles for the teaching
of German in the first year at university**

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DECLARATION

I, the undersigned, hereby declare that the work contained in this thesis is my own original work and that I have not previously in its entirety, or in part, submitted it at any university for a degree.

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Signature: CC van der Merwe

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Date



ABSTRACT

Suggestopedia, as an innovative method of teaching, inter alia, second and foreign languages, has reportedly achieved exceptional results. With the development of this multimedia program it was decided to base the program on suggestopedic principles. In this thesis, I discussed the theory of adult second language acquisition, cognitive learning theory, constructivist learning theory and the consequences these theories have on language teaching. The overview of literature incorporates a description and analysis of Suggestopedia and looks at Suggestopedia from the following perspectives:

- a description of suggestion
- a description of suggestology
- the basic premises of Suggestopedia
- the purpose of Suggestopedia
- the principles of Suggestopedia
- the suggestopedic cycle
- the suggestopedic text
- the classroom module
- the computer program.



The multimedia computer program was developed to enhance the classroom module of the first year students of German at the university. In this thesis, I describe the interface and design of this program in terms of colour, incorporating colour theory, the name of the program, the overall design and the structure of each scene.

OPSOMMING

Volgens berig word, het Suggestopedie, as 'n innoverende metode van onderrig van onder andere tweede en vreemde tale, uitsonderlike resultate behaal. Met die ontwikkeling van hierdie multimedia program is besluit om die program te baseer op suggestopediese beginsels. In hierdie tesis bespreek ek die teorie van volwasse tweede taal verwerwing, die kognitiewe leerteorie, die konstruktivistiese leerteorie en die implikasies wat hierdie teorieë inhou vir taalonderrig. Die oorsig van literatuur sluit 'n beskrywing en analise van Suggestopedie in en kyk na Suggestopedie vanuit die volgende perspektiewe:

- 'n beskrywing van suggestie
- 'n beskrywing van suggestologie
- die basiese uitgangspunte van Suggestopedie
- die doel van Suggestopedie
- die beginsels van Suggestopedie
- die suggestopediese siklus
- die suggestopediese teks
- die klaskamer module
- die rekenaarprogram.

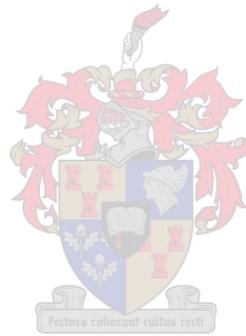


Die multimedia rekenaarprogram is ontwikkel om die klaskamer module van die eerstejaar studente van Duits op universiteit aan te vul. In hierdie tesis beskryf ek die koppelvlak en ontwerp van hierdie program in terme van kleur, insluitende kleurteorie, die naam van die program, die algehele ontwerp en die struktuur van elke bedryf of toneel.

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1. BACKGROUND INFORMATION

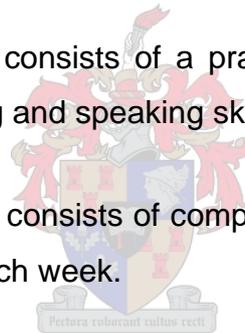
At Stellenbosch University the first year module¹ of German is taught according to suggestopedic principles (see discussion on 7. Suggestopedia).

This module consists firstly of a classroom module or part based on a suggestopedic text: "Eine Oper für die Tupari". This part is based on the suggestopedic cycle (see 7.6 Suggestopedic Cycle).

Secondly, the German module consists of a grammar part, in which the grammar is explained and exercises are done. The grammar corresponds with grammar elements in the suggestopedic text, as well as grammar done in the practical part.

Thirdly, the German module consists of a practical part where the focus is mainly on developing listening and speaking skills.

Fourthly, the German module consists of computer lessons or tests which the students have to complete each week.



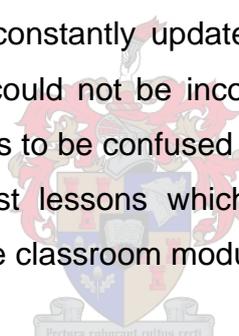
The 17 computer lessons used in the fourth part of the German module are the reason for choosing German 178 as topic for developing a multimedia computer program. These lessons were created between 1982 and 1986 with a DOS-based authoring system, Quest version 4.2. These lessons form an integral part of the German 178 module, with exercises on grammar aspects, vocabulary and the content of the texts used in class, and have been used every year as part of the German module.

The current standard of computers used in the Computer User Areas and electronic classrooms at Stellenbosch University, is Pentium 4 processors using Windows XP as operating system, with a screen resolution of 1024 x

¹ Throughout this thesis "module" refers to the German 178 module as taught at Stellenbosch University and "computer program" or "multimedia program" refers to the newly developed program submitted as partial requirement for the Masters degree.

768 pixels. It is impossible to keep the Quest lessons running on Windows XP mainly because of technical incompatibility with DOS. The DOS version used for these lessons when they were created was DOS 3.1. The Quest lessons were created to run on a screen resolution of 640 x 480 pixels and a maximum of 16 colours. As a result of the limitation of the screen resolution only a small amount of information fitted on each screen. The limited colours available caused some screens to be illegible because of the colour combinations used for text and background. The graphics used in the Quest lessons are pixel based, created dot by dot.

Apart from running these lessons on Windows XP, another problem was that nothing could be added to or changed in these lessons, as the Quest editing program does not work on Windows XP. The Quest editing program is a DOS program and can not run on Windows XP. This caused a problem because the suggestopedic text was constantly updated by lecturers of the German module and these changes could not be incorporated in the existing Quest lessons. This caused students to be confused about some of the questions or sentences used in the Quest lessons which were no longer part of the suggestopedic text used in the classroom module.



The original aim of the development of the multimedia computer program was to recreate these lessons and make them compatible with currently available multimedia technology. The challenge was to get the content from the old lessons in electronic format as it could not be printed or copied. It had to be typed from a screen running the program.

It was decided at a very early stage of the modification of the existing Quest lessons not only to revise the old Quest lessons, but to make the new computer program a self-contained unit, incorporating the suggestopedic text "Eine Oper für die Tupari".

Although this computer program is made to assist with the classroom teaching, it can also be used on its own. It was also decided to include some German grammar in each scene in the text, according to the schedule as

taught in the German 178 module. Therefore, the multimedia computer program incorporates at least two of the four parts of the German 178 module, i.e. the suggestopedic text, vocabulary, grammar and exercises from the old Quest lessons, as well as some newly developed exercises.

2. AIM

The general aim of the German module, as presented in the classroom as German 178 at Stellenbosch University, is to enable students to communicate with native speakers in everyday situations.

The aim of the development of the multimedia computer program was to recreate the existing Quest lessons and make them compatible with currently available multimedia technology. This aim was expanded to integrate the suggestopedic texts, existing Quest computer lessons and German grammar done in German 178 in a meaningful whole.

The aim of the computer program is to support, enhance and extend the German first year module: German 178 at Stellenbosch University and to create a rich learning environment in which students can learn in a playful manner. This rich environment is created by large volumes of information and the playfulness is created through the design of the program (discussed later). As the program is based on suggestopedic principles, the playfulness is important because the goal is to make it possible for the student to “be as receptive as a small child exploring and discovering his world and to absorb huge volumes of information with apparent ease and joy” (Lozanov in Botha 1986:109).

3. OBJECTIVES

Students will be able to practise their skills with vocabulary and grammar done in the classroom module of German 178.

Students will be able to revise the content of and the meaning of certain words and phrases from the suggestopedic texts.

Students will be able to obtain a visual picture and an understanding of cities, people and specific elements mentioned in the texts by the large amount of information available to them.

4. NEEDS ANALYSIS

By making use of a needs analysis one can determine what the specific needs for developing the course are. Before conducting a needs analysis, a performance analysis is done to determine the educational performance deficiencies, the cause of the problem and the possible solutions to the problem. After evaluating existing training materials, a needs analysis is conducted to address solutions to the possible problems. Some elements established through the needs analysis are:

- the situations in which learners must act through speech
- the roles they must perform in these situations
- the topics which are likely to be spoken about
- the speech acts necessary to perform these roles and to communicate on these topics
- the necessary vocabulary
- the necessary structures

Therefore, in the case of the multimedia computer program, the needs analysis, as described in the first paragraph, was already done when the texts were created. It was decided by the writers of the text that the text had to facilitate identification, while at the same time it has to remain exotic enough

to maintain sufficient curiosity and interest. The text had to contain and balance both components: familiarity with phenomena (which will lead to identification) as well as a certain strangeness, a sense of the unknown (which will create interest and curiosity). In the text the familiarity is carried mainly by the characters and the plot, while the unfamiliar, the exotic, features in the milieu, the geographical and social context in which the action takes place.

Kussler and Bodenstein (1986:14) state that “when writing our text, we concluded that the best blending would be a general, ‘universal’, human situation in an unmistakably German context. The ‘universally human’ situation par excellence seemed to be two young people of opposite sex meeting, getting to know each other, experiencing things together, becoming better and better acquainted and falling in love.”

Since the characters are the structural element which must primarily cater for identification, it follows that they have to be true to life. In this sense they can become very attractive and effective ‘bait’ for the acquisition of knowledge about the target culture and its language.

In planning the story on broad lines, it was decided to move away from traditional grammar. Instead the writers chose a principle which seems more appropriate in Suggestopedia (Kussler and Bodenstein 1986:15), namely linguistic progression according to true-to-life speech acts. The framework of speech acts naturally became embroidered and expanded according to the flow of the story itself. The result is a text with narrative continuity which takes one through all these speech acts.

Apart from the needs analysis for the creation of the text, a specific need for the development of the computer program was identified. The existing Quest lessons used in the German 178 module became outdated and technically difficult to use (as explained in the Background Information). These lessons needed to be revised and completely recreated, using contemporary technology (see Interface and Design).

5. TARGET GROUP

The specific learner group or target group is of the utmost importance when creating any CALL programme, because it will determine the content, the way you will present the content and, in many instances, the graphical interface you will use in your programme. By determining the target group you will look at identity (age, sex, nationality, etc), language proficiency (beginner, intermediate or advanced), purpose (occupational or educational) and setting (spatial, temporal) (Munby 1985:52–66). In the case of this program, the target group is first year students taking German as a subject. Their ages would normally be between 18 and 21 years, although you do find older students who sometimes do the German first year module. Some lecturers and older students (not in their first year) also do the German module. All of these students are starting with German and therefore their language proficiency is at beginner level. The purpose for doing German is educational, mostly as part of or as a prerequisite for a specific degree. Some students, approximately 10%, are from other faculties than Arts and do German as an extra subject.

What influence did this knowledge have on the development of the computer program? It was of the utmost importance, especially with the development of the interface. When the interface was planned, the attempted look-and-feel was young, energetic and jazzy, with bright colours.

The knowledge of the target group was also important for creating the content. The program was created to be fun to use and to have rich and varied information available to stimulate a vivid imagination. Suggestopedic principles (discussed later) were applied to make learning a pleasure (fun). The use of massive and rich input plays a role in Suggestopedia to suggest to the students that they are capable of understanding large amounts of material and that they can actually acquire the material (Botha 1986:141).

6. THEORY

6.1 Theory of adult second language acquisition

Blair (1982:17) lists a set of related hypotheses put forth to account for observed phenomena in adult second language acquisition. Its generalizations are supported by empirical evidence, experiments and research done with theory in mind. These hypotheses cannot be proved or definitely verified, but they are subject to disconfirmation. The pedagogical implications of these hypotheses show that the implications are consistent with applied linguistic research.

The Acquisition-Learning Hypothesis: there are two independent ways of developing ability in second languages. "Acquisition' is a subconscious process identical to the process children utilize in acquiring their first language, while 'learning' is a conscious process that results in 'knowing about' language" (Krashen 1985:1). Through the subconscious process language is acquired by informal, implicit learning in the way children acquire their first language. Once something has been acquired, one is not always aware that one has done it. It just feels natural as if it has always been there. Quite distinct from this acquisition is conscious language learning. This is knowing about language: explicit, formal linguistic knowledge of the language.

The Natural Order Hypothesis: it states that we acquire the rules of language in a predictable order, some rules tending to come early and others late. The order does not appear to be determined solely by formal simplicity and there is evidence that it is independent of the order in which rules are taught in language classes.

The Monitor Hypothesis: states that our ability to produce utterances in another language comes from our acquired competence, from our subconscious knowledge. Learning, or conscious knowledge about language, serves only as an editor, or monitor (Krashen 1985:2). There is an appeal to learning to make corrections, to change the output of the acquired system

before one speaks or writes (or sometimes after one speaks or writes, as in self-correction).

The Input Hypothesis: claims that humans acquire language in only one way – by understanding messages, or by receiving 'comprehensible input'. The input hypothesis holds true for child as well as adult language acquisition. It claims that listening comprehension is of primary importance in language acquisition, and that speaking will emerge with time (Blair 1982:20). Acquisition is brought about when one talks to acquirers so that they understand the message, and when the input includes a little language that is somewhat beyond them. So if one wants to teach someone to talk, one would not teach them to talk, but give them comprehensible input. According to Blair (1982:24) this is the single most exciting hypothesis in second language acquisition theory and practice today: that the language acquirer "has a built-in syllabus in his head". This differs from the Constructivist Learning theory which says that "new knowledge implies a reorganisation of the already available information" (Wolff 1996). In 1982 the Constructivism was not yet generally supported.

The Attitude Hypothesis: says that people with certain personalities and certain motivations perform better in second language acquisition, and also that certain situations are more conducive to second language acquisition. Low-anxiety situations are more conducive to language acquisition than high-anxiety situations and people with high self-confidence and self-esteem acquire language skills faster than those without these characteristics (Blair 1982:24). One of the tasks of the teacher is to help each student gain a positive and realistic image of himself as a learner (Purkey 1970:43).

The Aptitude Hypothesis: states that there is something called language aptitude and it can simply be defined as how well you do on the Modern Language Aptitude Test. Aptitude measures how fast you learn; so it probably relates to learning and not acquisition (Blair 1982:25).

The Filter Hypothesis: It is suggested that a filter, an affective filter, can keep input from getting in. Another word used for filter is a mental block: a block against language learning (Krashen 1985:3). What the filter hypothesis says about pedagogy is that the more we do to lower the filter, i.e. the more our classes have an atmosphere of low anxiety, the better our students will perform.

The L1 Hypothesis: says that the first language (L1) is used as a substitute utterance initiator in situations where the second language (L2) competence is not available. One mistake adults make is to use the first language as the generating device for producing utterances in the second language (Blair 1982:26). This differs from the way a child acquires a second language. A child may have a prolonged silent period while he or she acquires input.

6.2 Cognitive Learning Theory (CLP)

According to Wolff (1996) the characteristics of cognitive learning theory are that:

- It regards human beings as information processing systems. This system enables them to receive sensual stimulations and to translate these stimulations into information which can be stored.
- It is assumed that this system is equipped with complex knowledge components in which the total knowledge is structured and stored in such a way that it is accessible at all times.
- New knowledge is created through the interaction between knowledge that is already available and incoming stimuli.
- Mental operations optimise the system, i.e. they control the increase in knowledge, as well as the rearrangement and availability of knowledge.

6.3 Constructivist Learning Theory (CLT)

According to Wolff (1996) the characteristics of constructivist learning theory are:

- Only information which can be connected with available knowledge can be understood and learnt.
- The individual construction processes used differ from person to person; therefore the results of the learning process are not identical.
- Learning is always "subjective" learning, which differs even for students who learn in the same social context. Again learning is individually different.
- New knowledge implies a reorganisation of the already available information.
- The social context and interaction are of primary importance in the learning process. Language as tool for interaction is the focal point. Language, for the human being, is the most important tool to think and learn with one another.
- Self organisation is of extreme importance. The human being as an in itself closed system organises him/herself and in that way also the world.
- Self organisation is connected with self responsibility. The human being is responsible for self learning because he/she ensures his/her survival in the system in this manner.

6.4 Consequences of CLP and CLT on teaching and specifically language teaching

- Topics should be presented in their full complexity. This is achieved by the suggestopedic texts used for this program.
- Contents should not be reduced. In this program large volumes of extra information is available for the student.
- Materials should not be re-structured to make them simpler, but should be as authentic as possible.
- There should be no provision for a specific learning progression.
- Learners should be equipped with skills for use in real-life-situations. The different adventures of Werner and Roswitha in the text take place in real-life situations and the skills acquired by the learner could be used to create new dialogues.
- An authentic and complex learning environment should be created.
- Learners should acquire an awareness of their own knowledge construction processes.
- Learners should be enabled to choose and use their learning and working strategies themselves. Due to the character of the computer program, students can choose their own working strategies.
- Learners should be encouraged to learn in co-operation with other learners. This is achieved in the suggestopedic classroom where students constantly perform tasks in groups.

For language teaching to be successful,

- authentic materials should be used;
- a rich learning environment should be created;
- working in groups should be encouraged;
- instead of having to learn "grammar", learners should become aware of their own language processing.

In this program authentic material is used in the form of the suggestopedic texts originally created by Rainer Kussler and Ruth Bodenstein. A rich learning environment is created by extra information on subjects which are mentioned in the text. In the computer module a student will work more on his own than in groups, but this aspect is addressed in the classroom module of German 178. In the computer program learners are not forced to go to the grammar sections. These sections are meant to be used as a reference only for knowledge already acquired in the classroom.

Although the multimedia computer program, created with Authorware, corresponds with some of the elements of the learning theories mentioned above, the program was developed according to the principles of Suggestopedia (see discussion later). This is a language learning theory on its own which differs in many aspects to the theories mentioned above. Recent thought and research about language learning creates the need to possibly add some elements to Suggestopedia, which can be a renewal of existing suggestopedic principles.

6.5 Learner autonomy

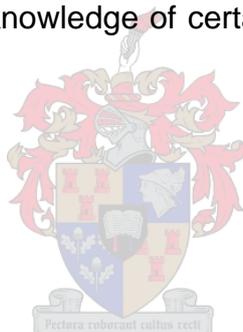
An important characteristic of cognitive and constructivist learning theory is learner autonomy. Learner autonomy is the ability to take responsibility for one's own learning process. Learner autonomy holds that learners set their

own goals, make decisions about contents and progression, choose their own learning methods and techniques and evaluate their own learning process.

In the multimedia computer program the computer is used as a tutor in some aspects of the work where the learner can complete certain exercises to test his or her skill in certain aspects of the language. The student can, however, determine his or her own progression (work at his or her own pace) and work at any time of the day.

Cognitive foreign language teaching could also be done with CALL, where the advancement of language awareness comes through discovery and active research by students. This can be done by using the computer as a tool, with the Internet and e-mail as two of the main components to be used. This is achieved in this program by the large number of websites learners can visit on the Internet to acquire more knowledge of certain places or topics mentioned in the texts.

7. SUGGESTOPEDIA



7.1 Suggestion

From the moment a child is born till the end of life, each individual is constantly influenced by suggestions coming from the social as well as the physical environment. Suggestions can be verbal or non-verbal. Furthermore, both verbal and non-verbal suggestions can address the conscious as well as the sub- and unconscious levels of perception (Bodenstein [S.a.]:1)

The accumulative effect of all suggestions on an individual is a specific self-image: people acquire a specific view of their own identity, their own abilities and their limitations. Suggestions have a determining effect on a person's attitude towards learning (compare the Attitude Hypothesis). By understanding more about the suggestions influencing a person's development, educators would be able to regulate learning processes more effectively.

The Bulgarian psychologist Lozanov developed a specific teaching method called Suggestopedia, which places a specific emphasis on the power of suggestion in the teaching environment.

7.2 Suggestology

The word suggestology is derived from the Latin suggestion and the Greek logia, and it can be described as the science of suggestion. Suggestology endeavours to reveal and utilize the real potential of the human brain. Lozanov (in Blair 1982:147) said: "Suggestology is the comprehensive science of suggestion in all its aspects ... it deals mainly with the possibilities of suggestion to tap man's reserve capacities in the spheres of both mind and body. Consequently it is the science of the accelerated harmonious development and self-control of man and his manifold talents."

Suggestopedia can be seen as an applied science where the basic findings of Suggestology, with regard to the effect of suggestion, are put into practice.

7.3 Basic premises of Suggestopedia

Lozanov's basic assumption is in accordance with the Russian psychologist, Vygotsky's (in Botha 1986:45) view, which states that each normal child is born with **relatively unlimited potential**. This potential can be developed and realized through interaction with other people, circumstances and occurrences. People believe the image of themselves, which has been suggested by the environment and the people they encounter, to be an unquestionable fact; they accept that they really are what others suggest they are.

As an example of the relatively unlimited potential of a human being, one can look at the human brain. The normal human brain weighs about one and a half kilogram. Within this marvellous structure we have approximately 100 billion nerve cells. Each of these neurons receives inputs from 100 to 1000 other neurons across 1000 to 10000 relay points called synapses. This

complex interconnection of message-bearing relays makes the human brain by far the most intricate "machinery" known. Humans are born with virtually all the brain nerve cells they will ever have (Hand 1986:4).

This basic premise is in contrast to the generally accepted assumption that every normal child is born with relatively limited potential. These two contradicting viewpoints have far-reaching consequences as far as the developments and achievements of learners are concerned. If a person believes he or she has unlimited potential, he or she will attempt more which will lead to achieving more, whereas if a person believes he or she has limited potential, the fear of failing will inhibit the willingness to try new things.

The next premise is that the **average individual underutilizes his brain** owing to all kinds of limitations being placed on him. Suggestions are regarded within the suggestopedic framework as the main stumbling blocks preventing learners to realize their potential. It follows that learners cannot be liberated into accepting appropriate beliefs about their true abilities, unless these limiting suggestions are addressed and countered during teaching procedures (Bodenstein [S.a.]:2). Suggestopedia endeavours to release the reserve potential of the brain by overcoming and changing the limiting forces or "barriers". When they are overcome and changed, optimal learning can take place. This optimization of learning is made possible by the simultaneous integration of brain functions.

7.4 Purpose of Suggestopedia

The main purpose of Suggestopedia is to release the reserve capacities of the brain which will ensure that optimal learning takes place (Botha 1986:48). To stimulate the mental reserves and to facilitate optimal learning, it is necessary for the teacher to know how to deal with preconceived ideas and prior conditioning that are restricting students. It is impossible to get rid of old beliefs and responses of the inner "set-up" of a student just by telling him or her that they are irrational. The level on which inner set-ups are formed is

mainly sub- and unconscious, and one cannot expect the students to be aware of irrational beliefs or to recognize and change them consciously.

Since the students have to be convinced that they can learn well in a situation before they will learn well, the irrational beliefs of "I can't!" or "I may not!" pose one of the greatest challenges to teachers. Lozanov (1978:28) calls these beliefs the anti-suggestive barriers because they stand in the way of the suggestions by which the teacher wants to lead students to improved self-awareness.

Three types of anti-suggestive barriers can be identified:

- a) The emotional barrier: rejects anything likely to produce a feeling of losing confidence or security. Even the belief "I'm a complete failure" may feel "secure" because it is one which feels familiar. Students may be extremely reluctant to let go of it unless they can trust an alternative belief as a substitute.
- b) The rational barrier: rejects suggestions which the mind has judged unacceptable on the ground of reasoning. Logical fallacies (generalizations etc.) can lead to irrational assumptions that seem to be rational. Very often emotional reactions are camouflaged as reasonable considerations.
- c) The ethical barrier: rejects anything that is out of harmony with the ethical views of the personality. Different social norms may activate this barrier in foreign language courses (extreme cases: religious, cultural or social taboos).

These anti-suggestive barriers are a filter between the environment stimuli and the unconscious mental activity. Lozanov (1978:162) maintained that certain suggestive conditions can bring about hypermnesia (supermemory), but to realize that the anti-suggestive barriers must be overcome, or rather be

harmonized with the suggestive conditions, to utilize the unused capacities of the human mind.

Lozanov specifically notes: "It is clear that the suggestive process is always a combination of suggestion and desuggestion" (Botha 1986:53). The suggestive process is always at an unconscious or slightly conscious level. Special attention must, therefore, be given to non-verbal communication in this regard: harmonizing with a specific barrier verbally and consciously will not have the required effect, unless the non-verbal and unconscious messages, which accompany what you indicate, coincide therewith. "Desuggestion frees students from the limitations of previous beliefs formed by the socially conditioned norm and convinces them that their potential is far greater than they realized or believed before." (Botha 1986:61).

The suggestopedic teacher tries to eliminate the limiting and negative suggestions which come to us daily by substituting, positive and constructive suggestions, which emphasize the potential of the human brain. There are seven important sources of suggestion:

- Verbal: which should be positive, supportive, firm, frank or friendly
- Non-verbal: like facial expressions, gestures or body language which can create feelings of acceptance and confidence.
- Classroom décor: which can support the interest in learning and enhance the general atmosphere of the class.
- Lesson materials: which can be interesting, colourful and easy to use.
- Activities: which can be motivating, interesting, engaging and also involve the right brain hemisphere.
- Peer suggestion: which stems from group interaction and can be good, warm or supportive.

- Self suggestion/auto-suggestion: which can be positive and constructive (Botha 1986:55).

Suggestion must never be confused with hypnosis. Although relaxation plays an important role in Suggestopedia, suggestion is always associated with a relaxed, but alert state. Paraconsciousness was described by Lozanov (in Botha 1986:64) as a regulator of several human potentials and aptitudes. We tend to use mostly the linguistic aptitude of the left hemisphere of the brain in our educational approaches, whilst the right hemisphere is more involved in aptitudes like intuition, imagination, space orientation, musical perceptions, emotions and the ability to perceive the whole. If we want to utilize all the reserve capacities of the human mind, we must adapt our approaches to include activities which are more right hemispheric orientated.

7.5 Principles of Suggestopedia

In his doctoral thesis Lozanov (in Botha 1986:103) singled out the following elements as the main stimuli of paraconscious mental reactions: authority, infantilization, dual-planeness, intonation, rhythm and concert-pseudo passivity. Later Lozanov condensed the elements to three principles:

- Joy, absence of fear and anxiety and concentrative psycho relaxation – learning must be a pleasure. Joy advocates joyful, free and relaxed learning, as a small child discovering and learning about his world. If the environment is warm and supportive and the personality does not feel threatened and full of fear, integrated brain functioning and much improved learning follow. Note that many of these suggestions come from the environment and are perceived paraconsciously.
- Simultaneous use of the conscious and paraconscious – integrated brain activity. There must be congruency between the verbal communication and all the other suggestions on the paraconscious level accompanying it.

- The suggestive link must be established. This is characterized by a positive and supportive attitude, trust and positive expectations in relation to the students' abilities, total absence of destructive criticism, de-emphasis of errors, encouragement of active participation in communicative acts and trust in the ability of the teacher.

Let us look at each of the elements: authority, infantilization, dual-planeness, intonation, rhythm and concert-pseudo passivity, individually. Although the elements are discussed separately, they always function in an integrated way.

Authority is described by Lozanov (in Botha 1986:109) as the "non-directive prestige which by indirect ways creates an atmosphere of confidence and intuitive desire to follow the set example." It has nothing to do with authoritarianism.

Infantilization is closely associated with authority, because the teacher with authority will instil trust and confidence, and the students will find it easier to 'let go' in such a teacher's class. The vital goal of infantilization is to make it possible for the adult, or child, to be as receptive as a small child exploring and discovering his world and to absorb huge volumes of information with apparent ease and joy.

Dual-planeness or double-planeness is used to explain how communication in the classroom takes place on more than one level, a conscious verbal level and a paraconscious non-verbal level. Dual-planeness does not only come from the people involved in the communicative act, but also from the décor elements like lighting and colour.

The success of verbal suggestion is largely determined by content and expressiveness of speech which incorporate sound intensity, **intonation** and accents corresponding with the meaning of the words.

Rhythm is found universally and it has always been used by man for various purposes. Presentation of material in accordance with the rhythm of the music

and deep, rhythmical breathing could have a positive influence on memorization and retention of material.

Pseudo-Passivity is seen in the concert sessions of the suggestopedic cycle. The suggestopedic concert sessions are something unique in the world of language teaching. During these sessions the teacher endeavours to involve the student's whole brain by creating a relaxed atmosphere devoid of any fear, by stimulating the student mentally as well as emotionally.

In the suggestopedic cycle each of these elements is vital as a part of the whole.

7.6 Suggestopedic Cycle

The venue where suggestopedic language classes take place, should be something totally different from a conventional classroom. The room should be furnished in such a way that it reminds one of a warm and cosy lounge. Ideally it should have a carpet, comfortable chairs, attractive pictures, flowers and enough light, and it must be well-ventilated. The chairs are arranged in a semi-circle which encourages interaction. An important piece of equipment is a high quality stereo system to play the cassette or CD recordings of the prescribed music. The cycle consists of a decoding phase, a first concert or active phase, a second or passive concert and an activation phase.

7.6.1 Decoding / Prelude / Pre-session Phase

Decoding / Prelude / Pre-session Phase could be seen as the preview of the material to be presented, and during this phase the teacher must refrain from lecturing, but rather give some global insights into the material. The teacher uses mimicry, drawings, pictures and some grammatical explanations to ensure that the students will follow the next act of the text with ease. This is done without giving the story away.

7.6.2 The First Concert / Active Phase: (25 – 30 minutes)

The musical compositions for the active session are very emotional, with a wealth of melody and harmony in them. The teacher's behaviour is solemn and the students follow his example. The classical music begins and the whole class waits in anticipation. The teacher then slowly reads the text as if it were part of the music. The teacher's voice must become like another instrument in the orchestra and it must float with the music. His voice must follow the volume, pitch and emotional quality of the piece. The teacher reads the text as if he was paying no attention to the meaning and he synchronizes his reading with the rhythm of the music. The students follow the reading in the text. During the pauses, there is enough time for the students to glance at the translation which is on the right hand side of the text. They are encouraged to repeat the words and phrases softly to themselves and to try to imagine the scenes as vividly as possible. After the reading there is a silence which communicates that something important has taken place, something beautiful which has also moved the teacher. There is time for internal reverberation (Lozanov 1988:22–23).

7.6.3 The Second or Passive Concert: (15 minutes)

Here the musical compositions are characterized by austerity of form, content and intellectual depth (Lozanov 1988:23). Mostly, slow movements from Baroque composers with a rhythm of 60 beats to the minute are played. The teacher sits down comfortably and correctly, and is very calm and relaxed. The students listen to the music for a while and then the teacher reads the text with animation according to the meaning of the text. The students sit with their eyes closed, completely relaxed, while they listen to the music. The last section of the concert must preferably consist of something cheerful, like a flute, to bring the students out of the relaxed state (Botha 1986:128). In this phase the brain produces more alpha waves, which is an indication that the students are relaxed and in an optimal state to learn effortlessly and effectively.

7.6.4 The Activation Phase / Post-session Phase

The Activation Phase / Post-session Phase is part of the interactive phase where implementation, transfer, elaboration and integration take place. The material is put to use by chorus reading, playing non-competitive games, role playing, acting out situations, drawing, cutting, quiz and competition games, songs, rhymes, stories, relaxation exercises, grammar, general knowledge, videos, tapes, dialogues, exercises (including CALL), handouts, group tasks, individual tasks, visitors from abroad, etc. It is apparently important that the plays and skits be emotional and humorous – later the text becomes the play and the students read their parts as a rehearsal.

The interactive phase, i.e. decoding and activation phases, takes up 80% of the time in the Suggestopedic cycle, while 20% of the time is spent on the ritualized phase, i.e. the first and second concert.

7.7 Suggestopedic text

Suggestopedia is an attempt at improving communication in the teaching process. Watzlawick (in Kussler & Bodenstein 1985:11) states that “whenever there are two persons who are both able to function normally as sender as well as recipient, it is impossible for either of them to behave in any way which does not convey something to the other. Consequently, all behaviour is communicative.” Watzlawick argues that this is so because communication takes place on two levels at the same time. The first level is called digital communication. On this level, information is transferred via language digits with fixed meanings. The second level is called analogic communication. On this level, information on how to understand the digital information is transferred. Here, the volume and tone of voice, facial expression, body language of a sender as well as aspects of the situation and environment in which the communication takes place, serve as indicators as to how a verbal message is to be interpreted by the recipient.

Lozanov’s Suggestopedia is based on this realization. It regards the teacher and the teaching environment as of the utmost importance for a successful teaching process and endeavours to integrate every facet of the teacher’s

behaviour and the teaching environment into the communicative process which takes place in the classroom. All the aspects of Suggestopedia – from background music to guided imageries – can be understood as facets of an orchestrated attempt to further analogic communication. It is in this respect that Suggestopedia differs from traditional methods of teaching which tend to stress the digital mode of communication. The suggestopedic text and the way it is structured, is therefore of the utmost importance.

There is little doubt concerning the highly positive effects of suggestopedic techniques on the general classroom atmosphere and the attitude of the learners towards each other, the teacher and the subject matter. Some researchers believe that there is “not really a question of how subject matter is taught through Suggestopedia, but what is sometimes questioned, is the quality of what is taught, of the subject matter itself: the suggestopedic text” (Kussler & Bodenstein 1985:12).

According to Kussler and Bodenstein (1985:14) "the text has to provide the linguistic basis, the digital substance, to be completed and complemented by simultaneous non-verbal, analogic communication. A good text must therefore provide a good contextual basis for the great possibilities of suggestopedic activation-techniques." The linguistic framework of the suggestopedic text through which the aim is to be realized must be that of a dialogue (Kussler & Bodenstein 1985:15).

All language courses make use of texts. A foreign language course normally starts off with secondary or didactic texts, i.e. material which has been specifically written for the course, and then gradually proceeds to primary or authentic texts. In suggestopedic language courses a secondary text in the form of a drama script is used. This text is mainly used for the introduction and presentation of the language material to be mastered by the students; but it also serves as a starting point for the activation of this material. The presentation of the text and the activation of the language material it contains, are the two basic steps in suggestopedic language teaching. They should be performed in such a way as to make the best possible use of positive

suggestion. It stands to reason that the text per se must lend itself to such a performance.

Throughout the writing of a suggestopedic text the author will have to consider the fundamental goal of Suggestopedia: to generate a learning environment in which all elements are harmonized optimally to create an experience of wholeness and integrity (Kussler & Bodenstein 1985:13). Two important implications for the text are:

- The principles of Suggestopedia must be incorporated into the text in a holistic sense: they should feature as internal elements of the text, they should constitute and determine its plot, its message and its style. The suggestopedic text should enhance the general atmosphere of relaxation, happiness and lack of anxiety in class. It should help the teacher establish and maintain authority and double-plane congruency, while at the same time facilitating the students' growth in self-esteem and in the realization of their own potential.
- The incorporation of the text into the broader framework of classroom activities must also be done in a holistic sense. It is essential that the foreign text, which is introduced to the students via the first and second concerts, should have a literary quality which corresponds to the aesthetic and ritualistic significance of the concert session. New speech acts, structures and vocabulary must be activated most naturally via the text. These speech acts must constitute the communicative skills to be mastered by the students. For example, in the first scene of "Eine Oper für die Tupari", some of the speech acts used is: interrupt, start conversation, state nationality, state place of residence, introduce yourself, state occupation. These speech acts normally consist of a general phrase on the one hand and specific information on the other. If these specifics are taken out of the text – and the text is an adequately built dialogue – what remains is a framework which can be filled with new specifics to create new dialogues. This has the advantage that if the text appeals to the students, one can assume that they would like to be able to simulate what

is taking place in the story. This can result in a motivation to acquire the communication skills needed to master speech acts in the target language (Kussler & Bodenstern 1985:13).

In South Africa little is generally known about circumstances in German-speaking countries and therefore any program teaching German should concentrate on inter-cultural communication through the use of background information ("Landeskunde"). The text should contain enough information about the circumstances in countries where the target language is spoken, to facilitate substantial discussion on an inter-cultural level in class.

The text has to facilitate identification, while at the same time remain exotic enough to maintain sufficient curiosity and interest.

7.8 Classroom module

At the centre of this course is the Suggestopedic text. "Suggestopedic texts imitate dramas; they are, in fact, little plays which consist mainly of dialogue. In printed form, the dialogue in the target language appears in a column on the left of each page with a translation in the mother tongue of the learners next to it on the right" (Kussler 1990:15). The Suggestopedic text used for this course consists of fourteen scenes. It is 52 pages long, including the translation.

The text is used in the beginners' German course at Stellenbosch University. It is called *Eine Oper für die Tupari* (An Opera-house for the Tupari), the Tupari being a tribe in the Amazon for whom Werner von Übermut, one of the main characters of the text, plans to build an opera-house right in the jungle. Roswitha Singvogel is a young music teacher whom he has met on his flight from Rio de Janeiro to Frankfurt. They are both originally from Germany and now living in Brazil. Werner has come to Germany to take possession of a castle on the Rhine which he has inherited from his late aunt. In the castle he finds a treasure which will enable him to realize his dream: to build the opera-house for the Tupari.

Methods of language teaching differ mainly in the way they introduce the material to be mastered by the students. Suggestopedia (Kussler 1986:11) does this by way of so called concerts. The concert sessions are always preceded by a thorough introduction to the new material. In the concerts themselves, portions of the text are read to music by the lecturer. During the first concert the text is presented in a dramatic way to lively classical music like Mozart's violin concertos. The students are highly active during this session: they listen to the presentation and at the same time follow the text and consult the translation where necessary. During the second concert the text is read again, this time in normal speech tone and to gentle music. The students relax and only listen; they can close their eyes if they want to.

The concerts, including the introduction, take up about 20% of the total classroom time. The rest of the time is used for practising the speech acts introduced in the previous concert session. The activities performed during these so called activations are much the same as in any communicative language course. The aim is to involve all the students all the time.

7.9 The Computer Program

The new computer program is intended to enhance the Classroom Module. It is based on the same situations and speech acts and gives learners the opportunity to go through the language material individually and in their own time. It is, however, also an extension of the Classroom Module. Not only does it amply provide for self-testing, but its general scope reaches beyond that of the Classroom Module, both linguistically and culturally. Learners who have successfully completed the basic course can use the computer program for revision as well as for expanding their knowledge of German. The computer program can form part of the activation phase of the suggestopedic cycle.

This component provides learners with the options to:

1. read and listen to the German text (and consult a translation, if desired)

2. read the German text together with its translation
3. read only the German text
4. study the text intensively page by page, getting information on relevant aspects of the German language and culture and doing exercises to test their progress.

It is entirely up to the learners what they want to do and in which order they do it. They might want to read the translation first, then read the German text and thereafter read it and listen to it at the same time.

8. INTERFACE AND DESIGN

8.1 Introduction

When it was decided to create the multimedia computer program, one of the first things to consider was which software to use for the development from those available at Stellenbosch University. The choice was between Dreamweaver to create a web application in HTML, and Authorware to create a more interactive program, which can run from a CD-Rom as an “.exe” file or be packaged to run as a web application. It was decided to use Authorware for the possibility to develop a more interactive program than with normal html. Using Authorware also creates the possibility to add assessment to some exercises at a later stage.

In twenty years technology has advanced dramatically. The consequences of this development can be seen by comparing the Quest lessons with the program developed in Authorware.

The existing Quest lessons have a screen resolution of 640 x 480 pixels, whereas today the standard used on computers at the university is a screen resolution of 1024 x 768. It was, however, decided to create the new multimedia program to be able to run on a screen resolution of 800 x 600,

because many students have computers at home or in the residences which still use this screen resolution. The choice of the screen resolution makes the program more compatible for use on older computers.

As a result of the low screen resolution, the Quest lessons had only a small amount of text on each screen. This sometimes caused a problem when explaining certain grammar aspects. Today it is possible to have much more text on the computer screen and it is therefore easier to establish relations between different parts of the explanation of the grammar, for example.

The Quest lessons had no photos and graphics were limited to graphics created dot by dot, and in many cases limited to only about three colours per graphic. In the development of the multimedia computer program, it was possible to make use of many photos and colourful graphics. This makes the program much more visual than the Quest lessons. The photos used in the program to portray the different cities mentioned in the suggestopedic text, bring these cities to life.

When the Quest lessons were created in 1982 the internet was not yet known or available. The HyperText Transfer Protocol (HTTP), which standardized communication between servers and clients to make information distribution easier, was only created in 1990. In 1991 this protocol enabled the creation of the World Wide Web and its system of links among user-created pages. A text-based web browser was made available for general release in January 1992. Today, with the availability of the Internet, it is possible to open the outside world of information to the student. Information is only a click of the mouse away and this is where the computer program assists the classroom module tremendously. In the classroom it is not always possible to have the amount of information available at “the fingertip” as in the computer module.

The Quest lessons had no sound as it was not yet possible to incorporate sound. In the new multimedia computer program sound is used to facilitate aural learners.

The Quest lessons only used 16 colours and usually not more than 3 or 4 colours on one screen. This created problems, as stated before, with legibility of text on the screen, for example when red text was used on a blue background. With the amount of colour available today, it is possible to eliminate this problem and to use colour to gain attention, motivate students and promote a user-friendly interface. The colours used are still determined by the designer of the multimedia program and it is therefore of the utmost importance for a designer to familiarize him- or herself with certain general guidelines for using colour (Fenrich 1997:233). Some of these guidelines are:

- keep colours consistent
- place no more than seven colours on a single screen (this excludes colours used in graphic images)
- combine foreground and background colours with high contrast.



The font used in the Quests lessons was the same font throughout, which to my knowledge was a system font. This was the only font available at the time. When the font is enlarged, the letters look like little blocks put together to make the font, which it in fact was. Today, with the availability of many fonts, careful choices must be made by the designer of a program to ensure that not more than three or four different fonts are used in one program. The type of font used in the computer program plays a role in how students perceive the program, as discussed later.

In the computer module the navigation makes it possible for the student to go back to previous screens or forward to any part of the program whenever he or she wishes to do so. In the old Quest lessons this was not possible to achieve.

Most exercises in the Quest lessons consist of one or two different types of questions. In the newly developed computer module it was possible to make use of different kinds of exercises, like drag and drop, multiple choice, true and false, fill-in-the-gap and matching. This creates greater motivation on the part of the students to attempt the exercises, and it addresses different learning styles.

The whole **text** of "Eine Oper für die Tupari" consists of 3 acts and 14 scenes in total. The magnitude of this was too extensive to develop everything as part of the M.Phil. The other modules will, however, be developed for use by the students of German 178. For the purpose of the requirements for the M.Phil, it was decided to develop the first four scenes of the first act of the text. The first four scenes form a unit in that it is the extent of the work done in the first term of the first semester of the first year German module. The first four scenes have the following settings:

1. on board an aeroplane
2. landing of the plane and at passport control
3. at customs
4. in a pub in the old part of Frankfurt.



Organized on a scene-by-scene basis, this component is intended to give students the opportunity to acquaint themselves intensively and in their own time with the suggestopedic text which they already know from class, reinforcing and enhancing their understanding of the text and of the German they have learned up to a given stage.

8.2 Name of the program

The name of the suggestopedic text on which the program is based, is: "Eine Oper für die Tupari". When the program was created, a new name was chosen: "Abenteuer mit Werner und Roswitha". The reason for this was that

"Eine Oper für die Tupari" has no real meaning for someone new to German. What is "eine Oper"? What is the "Tupari"? "Abenteuer mit Werner und Roswitha" reveals that two people are involved, Werner and Roswitha and that they experience adventures. The major purpose of changing the name was to create excitement, enthusiasm, curiosity and suspense, which would be in line with suggestopedic principles (Dhority 1985:16).

8.3 Colour

"Colour is an important warning signal for many subhuman species ... it could be innately determined that warm colours have a different arousal value than cold colours." (Davidoff 1991:114).

That we associate colours with emotions is without question. This has been exploited in advertising for years, with colours used to encourage particular associations with products. Ellis (1997) found that even from childhood pink is associated with peace or happiness; blue with peacefulness or sadness; green with happy and black with sadness or anger. More importantly, though, there is increasing evidence that colour is not only associated with mood, but that it can be used deliberately to produce particular emotional and physiological states. Schauss (1979) reports that a particular shade of pink can relax hostile or agitated behaviour in approximately ten to fifteen minutes. Hamid and Newport (1989) found that physical strength and a highly positive mood were demonstrated in a pink-coloured room, while the reverse was found in a blue-coloured room.

There is some evidence that bright colours enhance cortical arousal. If these findings translate to interface design they present some interesting possibilities. Emotion could be targeted, for instance, to enhance the effectiveness of multimedia for particular purposes, such as learning, or motivation for positive change. Indications are that colour continues to have an effect when viewed on screen. Wolfson and Case (2000) manipulated background colour (red / blue) in a series of computer games. Players using a blue screen improved gradually over the session, while red screen players

peaked midway and then deteriorated. A similar pattern for heart rate was found, suggesting that arousal was implicated in the effect. The results suggest that the aura of a computer game may affect cognitive and physiological responses.

According to the findings of the research on colour and design, colour can be used for positive suggestion and creating a specific low anxiety environment or supportive atmosphere. By applying the colour theory the principles of Suggestopedia is enhanced.

It was decided to use white as the primary background colour for its crisp clearness. Just as black is total absorption, so white is total reflection. It is clean and hygienic, and gives a heightened perception of space. The positive association with white is hygiene, clarity, purity, cleanness, simplicity, sophistication and efficiency.

The other main colours chosen were pink and a near-to-neon green. These two colours are used for different elements on the screen like the banner, buttons, titles, clipart icons, some feedback and sometimes as a filter for certain graphics. The pink and green combination together with the white was specifically chosen for the young and energetic feeling it portrays. Pink, as colour, gives a more "funky" look than the primary colours of red, blue and yellow. The colour theory of pink states that, being a tint of red, pink also affects us physically. However it soothes, rather than stimulates. Pink is a powerful colour, psychologically speaking. It represents survival of the species; it is nurturing and physically soothing. The positive association with pink is physical tranquillity, nurturing, warmth, femininity, love and survival of the species.

Green strikes the eye in such a way as to require no adjustment whatever and is, therefore, restful. Being in the centre of the spectrum, it is the colour of balance – a more important concept than many people realise. When the world about us contains plenty of green, this indicates the presence of water, and little danger of famine, so we are reassured by green on a primitive level.

Positive associations with green are harmony, balance, refreshment, universal love, rest, restoration, reassurance, environmental awareness, equilibrium and peace.

As seen from the above, the colours chosen harmonize well with the concepts of relaxation and low anxiety of Suggestopedia.

8.4 Design of specific elements

A **banner** was created which appears throughout the program at the top of most pages.

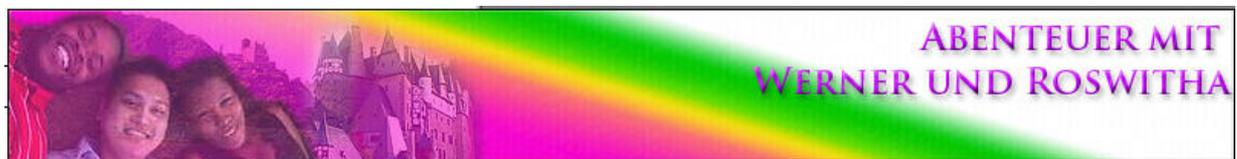


Fig 1: Banner

The banner brings the colours of pink and green to each screen. In the banner is a picture of a castle, a mountain with another castle and some young faces. These faces were chosen because they look like typical students, which can make the link to the target group. The picture of the castle was chosen because Werner's castle plays an important role in the adventures of Werner and Roswitha.

The **first screen** has the colours of pink and green and white, with an outline of the maps of South America and Germany with an aeroplane between the two. Both maps contain elements from that continent or country, which is referred to in the text. This was created to give a hint of what can be expected, without giving away the story (Botha 1986:99). This is in line with one of the suggestopedic principles of the program: "keep the suspense".

The **second screen** is a menu from where the student can navigate to the different modules or scenes of the computer program. In this menu the first item takes the student to a section containing information and a description of the navigation in the program. In this section the working of the different

buttons used in the program is explained. The elements of the clipart menu of each scene are explained. The outlay and working of the information pages in each scene are described to the student.

Buttons were created to repeat the main colours of the program, pink, green and white, and to be in line with the suggestion of joy and playfulness. All buttons have a rollover effect to make them more interactive and user-friendly. Word buttons are in German with a rollover effect in English to be in line with the "double-plane" approach of Suggestopedia (Lozanov 1988:26).

Example of buttons:

Up state:

Übung
beenden

Rollover effect:

Übung
beenden
Exit exercise

The **font** used throughout the program is "Arial". Graphologists and designers argue that the style of font conveys meaning whether it is intentional or not. It is generally reported that the effect of using a particular font is in part dependant upon the context in which it is being used and the nature of the person reading the font. The influence is subliminal, yet the medium and the message should ideally complement one another. Otherwise an incongruity develops, as if the person is saying one thing yet displaying the opposite facial expression or tone of voice. Many people use a particular font simply because they like it, but they fail to consider the individual on the receiving end – the reader. Sans Serif Styles such as Arial, Modern and Universal – carry little 'emotional baggage'. they are the 'sensible pair of shoes' of print and have a contemporary generic quality about them that make them a safe choice for those who want to blend in and say little through the font they use. Arial is the most popular personal choice for font.

The size of the font also matters. It is very important in creating an effect. In this program the sizes mostly used are size 10 or 12. This corresponds to the crisp clearness of the colours. Often, small font e.g. 11 point, conveys greater confidence and importance than larger versions. Less is more. Some designers see that they have space on a page and think that they must fill the page with huge amounts of large font. Greater impact can be achieved by having enough white space around the text.

The text colour normally is black, except in some instances where colour was used to place emphasis or to distinguish between an exercise question and feedback. Black is all colours, totally absorbed, a fact that has considerable psychological implications. It communicates absolute clarity with no fine nuances. It works particularly well with white. It communicates sophistication and uncompromising excellence. Positively, black is associated with sophistication, glamour, security, emotional safety, efficiency and substance. Also, a black letter on a white background is more readable than for example a blue letter on a yellow background.

For screen headings, the font "Trajan Pro", was used and inserted as graphics in the program. A different font was used for the headings to make a visual distinction between the headings and the normal text.

The **graphics** used in this program are all of photo quality. This links well with the rich environment of the Suggestopedic classroom. All graphics were used for a specific purpose and not only to "decorate a screen". This will be explained in more detail in the description of the structure of each scene. Clipart was used as menu items for each scene and to explain a grammar concept. The clipart used came from various sources and in each case was customised to fit in with the overall look and feel in terms of colour. In some cases two or more clipart pictures were combined to create a specific icon for a specific part of the program.

8.5 Structure of each scene

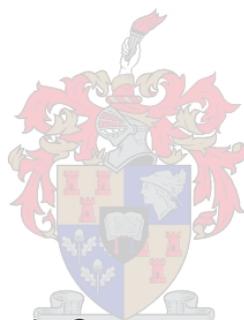
Each scene consists of five parts. The first part gives the student the text of the specific scene in German, with a translation of the text in English and a voice reading the German text. The second part has the text again in German with words underlined in the text to unlock a sizable amount of information. The third part is a comprehension test of the content of the text. The fourth part contains some exercises and the fifth part is a menu taking you to the aspects of grammar covered in that scene.

8.5.1 First part

The clipart icon used to portray this part is an open book with an ear hearing sound, which symbolises the text with sound.



Fig 2: Clipart icon for text with sound



The text of each scene is given in German on the left hand side of the screen and the English translation on the right hand side of the screen, see screenshot:



**ABENTEUER MIT
WERNER UND ROSWITHA**

<p>ERSTER AKT</p> <p>2. SZENE: Ankunft in Deutschland.</p> <p>Das Flugzeug nähert sich dem Flughafen.</p> <p>KAPITÄN: Meine Damen und Herren, wir landen in wenigen Minuten in Frankfurt am Main. Wir bitten Sie, Ihre Sitze wieder aufrecht zu stellen und Ihre Tische zurückzuklappen. Bitte stellen sie alle Mobiltelefone und elektronischen Geräte ab, bis das Flugzeug gelandet ist.</p>	<p>FIRST ACT</p> <p>SCENE 2 Arrival in Germany.</p> <p>The aeroplane approaches the airport Frankfurt.</p> <p>[My] Ladies and gentlemen, in a few minutes we will be landing at Frankfurt/Main airport. We request that you place your seats in the upright position and fold back your tables. Please keep all mobile phones and electronic equipment switched off until the airplane has landed.</p>
--	--



Beenden
Menu
Ton beenden
1 of 9

This is the same text given to the students in the classroom module and used for the first and second concert of the suggestopedic cycle. A voice reads the German text. This was done to stimulate both verbal and aural learners. Music was not added to the voice, as we did not want to recreate the concerts used in the classroom module. The computer program forms part of the activation phase of the suggestopedic cycle, therefore the text is not given as a whole, all at once, as in the classroom, but in smaller chunks on each screen through which students can move forwards and backwards as much as they like. By the time the students do the computer program, they should be quite familiar with the text already.

8.5.2 *Second part*

The clipart icon used to portray this part is an open book with an "i" on it which is a symbol of the text with extra information available.

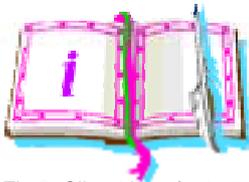


Fig 3: Clipart icon for text with extra information

The same text is given only in German, in small chunks, as in part one, but without the voice reading it.

Next to each part of the text, on the right hand side is a picture which is linked to something in the text on that particular screen. The pictures were treated with a pink filter and a green border to fit in with the overall look and feel of the program and also to give them a more distant feel, i.e. this is not Werner and Roswitha, but this is a possibility of how they may look. According to Suggestopedia, students must use their own imagination to form a picture of Werner and Roswitha, the castle and other elements in the text. Therefore, pictures of different people and castles were used throughout the program so as not to create a specific picture in the student's mind.

In this part of the program, a button is available for the students to again look at the English translation of the text if they should wish to do so.

In the German text many words and phrases are underlined. Each of these will give the student more information. This forms part of the activation of the text in the suggestopedic cycle. Ample extra information is available for further exploration. One of the prominent features of Lozanov's approach in Suggestopedia is the input of massive amounts of material – many times more than with traditional methods (Blair 1982:11). This information is loaded with lexical and grammatical information and is of artistic value, with a view to the general educative aspects of the instruction – familiarizing the students

with the culture of the country (Lozanov 1988:26). Many of these links take the student to a new page of information on a person or place. Many of these pages have many pictures of the specific place, like Bonn or Frankfurt. The pictures on these pages are small, but when you move the mouse over them, a bigger version of the picture appears. The reason is to eliminate unnecessary mouse clicks by the student to open and close the pictures. The amount of information available is important for accelerated learning; as Hand (1986:12) states: "Be careful not to detract from the clarity of the presentation, use as many types of sensory and theoretical inputs as possible. Multiple channels of input stimulate multiple brain sites and distribute neuronal connections across these sites. This improves recall capabilities because any of a number of stimuli can trigger the recall process."

On these pages, many internet links are available, giving more information on the topic at hand. A student has to have his internet connection open to view these pages. These links were all checked to work prior to handing in the project. If any of them do not work, it will be due to pages moved on the internet or sites not being available at a specific time, which I have no control over. The students are welcome to explore as much as they like. Most websites are in English, but there are also quite a few German websites, which have an English translation, for the student who wants to test his German language skills.

8.5.3 *Third part*

This part of each scene of the computer program consists of a comprehension test on the specific text of that scene. The clipart icon used portrays two pieces of a puzzle, which is a metaphor for the puzzle of Werner and Roswitha's adventures that we are trying to build. To comprehend a text is to decipher a text or to put puzzle pieces together, i.e. words, clauses and sentences are joined to extract and give meaning to a text.

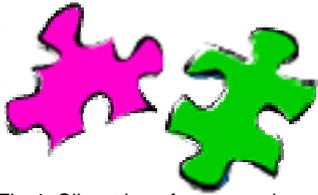


Fig 4: Clipart icon for comprehension test

In the first two scenes the comprehension test consists of true or false questions, and scene three and four tests consist of multiple choice questions. The questions are given randomly to the student out of a group of questions. These questions become progressively more difficult to answer, in line with most language teaching principles. Students are not penalised for the wrong answer, but are given feedback to help them. The feedback is given immediately once the student answers the question. Students are directly involved to such an extent that they quickly realize where they stand in terms of their comprehension and other abilities in the target language.

8.5.4 *Fourth part*

The clipart icon used portrays two dice, which look as if they are rolling.



Fig 5: Clipart icon for exercises

It is a symbol of the playful character of the exercises in this part. The playfulness is important according to one of the principles of Suggestopedia: “joyful, free and relaxed learning as a small child discovering and learning about his world” (Botha 1986:103). The playfulness eliminates the threat and fear associated with a test or exercise and creates a relaxed atmosphere.

For every scene this part consists of three exercises. The clipart icon used for each exercise is a pie chart with one piece lifted out, with a one, two or three on it. The first exercise is on vocabulary from the text of that scene. This exercise is in the form of a game where the student first has to click on a pink

block to reveal a picture. Then he / she must choose a German word that fits the picture. This is a race against the clock as there is only a limited time in which to find the answer. This exercise applies the concepts of Suggestopedia through colourfulness, by the use of many photos and a game atmosphere, by the race against the clock. In this exercise a button is available for the student to quit the exercise if he/she so wishes. This is done so that a student will not feel stuck in the exercise.

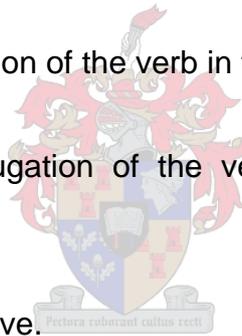
The second and third exercises are exercises on certain aspects of German grammar. The grammar in each scene corresponds with the grammar done in the classroom module. The grammar done in each scene is as follows:

Act1 Scene 1: the article, personal pronouns and the verbs "sein" and "haben";

Act1 Scene 2: the conjugation of the verb in the present tense;

Act 1 Scene 3: the conjugation of the verb in the present tense and interrogatives

Act 1 Scene 4: the accusative.



On each of these exercise screens, a Help button is available. It bears the German name "Hilfe". This will take the student to a reference guide on the grammar involved in that specific exercise. The help available in these exercises is always help on the content and not help on the technical aspects of the working of the program. The type of exercise differs in each instance. In the exercise on the article, colour coding was used for "der" (blue), "die" (pink) and "das" (green) to also stimulate the right hemisphere of the brain to play an active role in memorizing the correct article with each noun.

8.5.5 Fifth part

This part of each scene gives the student access to a menu of the specific parts of grammar touched on in the exercises of that scene. The clipart icon used portrays a book, pencil and apple with "abc" written above the book.



Fig 6: Clipart icon for grammar

This is a symbol for learning basic grammar. These pages were created merely as a reference for the student on parts of grammar already done in the classroom. If, however, a student uses it to learn a specific part of grammar, then it is his/her choice.

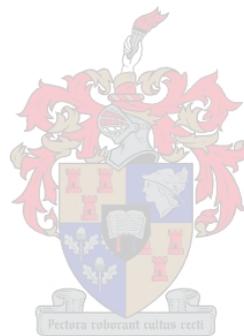
Different types of learners are addressed in the grammar sections, where information is not only conveyed through text, but also visually through the use of colour and graphics. For example, to explain the verb endings for the different persons in the present tense, a colourful clipart picture of a train was used with animation to show the person, the verb and the verb ending for that specific person.



Fig 7: Clipart picture for explaining verb endings

9. CONCLUSION

Through the development of the multimedia program it was possible to create a support program for the German 178 classroom module based on suggestopedic principles. The advances in technology opened many possibilities for the development of the new multimedia program, which were not available or possible in the Quest lessons. Technology advances rapidly and an aspect which can be explored in future is incorporating speech recognition in this program so as to address the development of listening and speaking skills of the students. Another interesting area of study could be to explore the effect that different wavelengths of different colours have on the alpha waves of the brain and what effect this will have on the learning ability of students.



REFERENCES

- Baumgardt, M. 1998. **Creative Web Design**. Berlin: Springer-Verlag.
- Basic Templates. 2003. Understanding Color Emotion Triggers. Available: http://www.basictips.com/tips/article_78.shtml. [8 December 2004].
- Blair, R.W. (Ed). 1982. **Innovative Approaches to Language Learning**. Massachusetts: Newbury House Publishers.
- Bodenstein, R. s. Philosophical and Didactic Principles and the main Techniques of Suggestopedia. Unpublished manuscript. Stellenbosch: Stellenbosch University.
- Botha, H.L. 1986. Suggestopedia for second language acquisition. Unpublished doctoral dissertation, Stellenbosch: Stellenbosch University.
- Brierley, B. & Kemble, I. 1991. **Computers as a tool in Language Teaching**. New York: Ellis Horwood.
- Brown, H.D. 1987. **Principles of Language Learning and Teaching**. Englewood Cliffs, New Jersey: Prentice-Hall.
- Caskey, O.L. 1980. **Suggestive-Accelerative Learning and Teaching**. Englewood Cliffs, New Jersey: Educational Technology Publications.
- Chapelle, C.A. 2001. **Computer Applications in Second Language Acquisition**. Cambridge: University Press.
- Clark, M. & Thyen, O. (Ed.). 1997. **The Pocket Oxford-Duden German Dictionary**. Oxford: Oxford University Press.
- Davidoff, J. 1991. **Cognition through Colour**. Cumberland: MIT Press.
- Dhority, L. 1985. Penetrating learning barriers and the art of suggestion. *Per Linguam*, 1(2):12–19
- Dryden, G. & Vos, J. 1994. **The Learning Revolution**. Aylesbury: Accelerated Learning Systems.

- Ellis, A. 1997. Seeing red or feeling blue? A psychological study of children's sensitivity of metaphorical expression of mood. Unpublished MA dissertation, Lancaster University Department of Educational Research.
- Ellis, A. 2002. Foster the Feel Good Factor. Available: <http://www.sitepoint.com/print/foster-feel-good-factor>. [8 December 2004].
- Fenrich, P. 1997. **Practical Guidelines for Creating Instructional Multimedia Applications**. Fort Worth: The Dryden Press Harcourt Brace College Publishers.
- Hamid, P.N. & Newport, A.G. 1989. Effect of Colour on Physical Strength and Mood in Children. *Preceptual and Motor Skills*, 69(1):179–185.
- Hand, J.D. 1986. The brain and accelerative learning. *Per Linguam*, 2(2):2–14.
- Hering, A.; Matussek, M. & Perlmann-Balme, M. 2002. **Übungsgrammatik**. München: Max Hueber Verlag.
- Krashen, S.D. 1985. **The input hypothesis: Issues and Implications**. New York: Lonman Group Ltd.
- Kussler, R. & Bodenstein, R. 1985. Suggestopedic texts for foreign language teaching: Some literary and didactic considerations. *Per Linguam*, 1(1):11-20.
- Kussler, R. 1986. Die Suggestopädie als kommunikativer Sprachlehriansatz. *Deutschunterricht in Südafrika*, 17(1):1-22.
- Kussler, R. 1990. Jumbo German. On the conception, creation and the outcome of an intensive German course for flight attendants of South African Airways. *Per Linguam*, 6(2):3-18.
- Levy, M. 1997. **Computer-Assisted Language Learning**. Oxford: Clarendon Press.
- Lozanov, G. & Gateva, E. 1988. **The Foreign Language Teacher's Suggestopedic Manual**. New York: Gordon and Breach Science Publishers.
- Lozanov, G. 1978. What does suggestopedia (desuggestive learning) look like at present. Minutes of Conference for Suggestology. Bulagaria, Sofia. Dec 11-16.
- Luscher, R. & Schäpers, R. 1975. **Deutsch 2000 – Grammatik der modernen Umgangssprache**. München: Max Hueber Verlag.

- Mitchell, R. & Myles, F. 1998. **Second Language Learning Theories**. London: Arnold, Hodder Headline Group.
- Moore, K.D. 1992. **Classroom Teaching Skills**. New York: McGraw-Hill.
- Munby, J. 1985. **Communicative Syllabus Design. A sociolinguistic model for defining the content of purpose-specific language programmes** (4th edition). Cambridge: Cambridge University Press.
- Pennington, M.C. 1989. **Teaching Language with Computers**. La Jolla: Athelstan Publications.
- Pennington, M.C. 1996. **The Power of CALL**. Houston: Athelstan Publications.
- Purkey, W.W. 1970. **Self Concept and School Achievement**. Englewood Cliffs, New Jersey: Prentice-Hall.
- Richards, J.C. & Rodgers, T.S. 2001. **Approaches and Methods in Language Learning**. Cambridge: Cambridge University Press.
- Schauss, A.G. 1979. Tranquilizing effect of color reduces aggressive behaviour and potential violence. *J. Orthomol Psychiatry*, 8(4):218–221.
- Sigman, A. 2001. Social and Emotional Connotations of fonts. Available: http://www.bbcworld.com/content/clickonline_archive_36_2001.asp?pageid=66&co_pageid=4. [8 December 2004].
- Skorge, S. 1992. **Kurze Deutsche Grammatik**. Cape Town: Maskew Miller Longman Ltd.
- Van der Vyfer, D.H. & Botha, H.L. 1989. The implementation and evaluation of Suggestopedic / SALT Language Learning. Unpublished report of Institute for Language Teaching, Stellenbosch: Stellenbosch University.
- Wolff, D. 1996. Kognitionspsychologische Grundlagen neuer Ansätze in der Fremdsprachendidaktik. *Info DaF*, 23(5):541-560.
- Wolfson, S. & Case, G. 2000. The effects of sound and colour on responses to a computer game. *Interacting with Computers*, 13(2):183–192.
- Wright, A. 2000. Properties of Colour. Available: <http://www.colour-affects.co.uk/psyprop.html>. [8 December 2004].

Internet sites consulted and used within the Authorware computer program

Amazon

<http://www.amazontravel.com/am/amazontravel-amazon-guide.htm>

http://www.moore.org/program_areas/environment/initiatives/amazon-andes/images/map.jpg

<http://members.aol.com/pochetti5/Amazon-Brazil.html>

Apfelwein

<http://frankfurt-interaktiv.de/frankfurt/apfelwein/apfelwein.html>

<http://www.apfelwein-pur.de/>

<http://www.schoppedeckel.de>



Belo Horizonte

<http://www.mytravelguide.com/city-guide/South-America/Brazil/Belo-Horizonte>

<http://darkwing.uoregon.edu/~sergiok/brasil/belo.html> (Belo Horizonte)

<http://www.pbh.gov.br/belotur/ingles/cidade/h-cid.htm>

http://www.belohorizonte.com.br/appletBH_pt.html



Berlin

<http://www.berlin.de>

Bier

http://www.bavaria.com/entertainment/beer_us.html

http://www.familie-im-web.de/familie/rezepte/produktwissen/bier_deutschland.html

<http://www.bier.de>

Bonn

<http://www.bonn.de>

<http://www.beethovenfest-bonn.de/>

Brazil

http://www.brasilemb.org/profile_brazil/profile1.shtml

http://www.lonelyplanet.com/destinations/south_america/brazil/

<http://members.aol.com/pochetti7/Bahia-Brazil1.html>

<http://members.aol.com/Pochetti4/Brasil-Brazil1.html>

Brüderschaft

<http://sam.tingleff.com/cms/2002/08/>

Deutschland

<http://www.deutschland.de/>

<http://www.infoplease.com/ipa/A0107568.html> (history)

<http://www.germanybyclick.com>

**Euro**

http://europa.eu.int/comm/economy_finance/euro/our_currency_en.htm

Frankfurt

<http://www.frankfurt.de/sis/>

<http://www.faszination-airport.com/deutsch/flash.html>

Freie Universität Berlin

<http://www.fu-berlin.de>

Helles

<http://www.dict.cc/blaettern/289.php>

Hermann Hesse

<http://www.hesse2002.de/englisch/frames.htm>

<http://nobelprize.org/literature/laureates/1946/hesse-autobio.html>

<http://www.ralf-sites.de/>

<http://www.hermann-hesse.de/eng/>

<http://www.bibliomaniac.de/hesse/sek2/glas.htm>

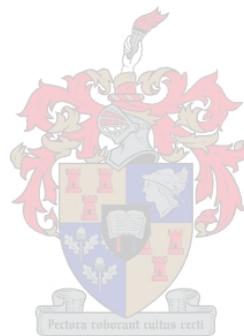
Köln

<http://www.koeln.de/>

<http://www.stadt-koeln.de/>

<http://www.uni-koeln.de/>

<http://www.koeln-online.de/>

**Made in Germany**

<http://www.made-in-germany.com>

<http://www.made-germany.com>

<http://www.made-in-germany-web.de/index2.html>

<http://www.haribo.com>

<http://www.steiff.com>

<http://www.steiffusa.com>

Marquez

http://www.gradesaver.com/ClassicNotes/Authors/about_gabriel_marquez.html

Münchener Oper

http://www.bavaria.com/culture/opera_us.html.

http://www.bayerische.staatsoper.de/c.php/index_bso.php?dom=dom1&

<http://www.muenchen.de>

Music Festival

http://www.muenchenerbiennale.de/site_en/index.htm

Öko

<http://www.oeko.de>

<http://www.oekorecherche.de/english.html>

<http://www.oekocity.de>

<http://www.oekonews.de>



Reinheitsgebot

<http://users.rcn.com/thor.dnai/dboard/dbnews/t9511e.htm>



Rio de Janeiro

<http://darkwing.uoregon.edu/~sergiok/brasil/rio.html> (Rio)

<http://www.magicspain.com/brasil/brasil.html>

<http://www.magicspain.com/riocape.html>

<http://ipanema.com/home.htm>

<http://www.ipanema.com/carnival/home.htm>

<http://ipanema.com/rio/basics/e/home.htm>

http://www.airlinequality.com/Airports/Airport_forum/rio.htm

<http://www.mytravelguide.com/city-guide/South-America/Brazil/Rio-de-Janeiro>

Stockhausen

<http://www.stockhausen.org/biography.html>

Studium

<http://www.graduateshotline.com/europe/de.html>

<http://www.campus-germany.com/english/>

Titles and forms of address.

http://www.avh.de/en/programme/betreuung/rat/13_01.htm

Herdoíza-Estévez, M. & Thompson, B. **Tolerance and Peace in the Global Village.**

<http://www.ius.edu/Education/Peace%20and%20Tolerance%20Resources/Home.html>

Tupari

<http://www.socioambiental.org/pib/epienglish/verbetinho/tupari.htm>

